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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/441,102	11/16/1999	DAVID A. SCHWARTZ	062891.0285	3856

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EXAMINER

EMDADI, KAMRAN

ART UNIT PAPER NUMBER

2664

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/441,102

Applicant(s)

SCHWARTZ ET AL.

Examiner

Kamran Emdadi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 01/17/99 have been fully considered but they are not persuasive regarding claim 1 and 12.
 - Regarding claims 1 and 12, the applicant states: "Wynn does not disclose, teach or suggest "a plurality of backplane cards coupled to the backplane, each backplane card assigned a standard-based network address" The examiner disagrees with this rebuttal that Wynn does not teach a network address assigned to a backplane card. The cards 101-105 mentioned in the Wynn rejection constitute the cards that are attached to the backplane and the the portion of the frames mentioned by "*a header whose destination addresses determine the card or cards that receive iPL frames subframes*" (Col 9, lines 5-10), is reason enough to show the inherent aspect of the cards to have a network address suitable to accept frames destined for them and guided by destination addresses, both claims stand rejected under the prior rejection.
 - Regarding claims 23, 33, 43, and 53 the argument posed by the applicant have been considered and the examiner agrees that the Wynn reference does not teach more than one packet transfer internal to the backplane cards and external devices, but the new found rejections teach the shortcomings of Wynn.
 - Regarding the dependent claims and combinational reference rejections, the applicant's concerns regarding Wynn have been clarified by the examiner, thus these rejections are in order for further review.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).
4. Claims 1 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Wynn (US Patent No. 6275499).

- Regarding claims 1 and 12, Wynn teaches: a plurality of cards in a backplane

OK (Col 5, lines 30-40), where the cards each have unique network addresses, and

communicate packets to the cards (Col 9, lines 5-10), and where the frames are

shown to contain address information (Figures 8 and 9), where more than one

packet is transmitted between network devices on the backplane (Figure 22) and

the association of ports on the backplane cards (Figure 19).

- Regarding claim 5, Wynn teaches: a plurality of buses on the backplane system

OK (Col 1, lines 48-54), and an OC-3 type network interface capability (Col 2, lines

3-5) where OC-3 is a well known dedicated bandwidth at 155.52 Mbps (Col 1, lines 22-23).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4, 13-16, 23-27, 33-36, 43-46, 53, 54-57 are rejected under 35 U.S.C.

103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167).

- Regarding claims: 16, 26, 36, 46, and 56, Wynn teaches: a plurality of buses on the backplane system (Col 1, lines 48-54), and an OC-3 type network interface capability (Col 2, lines 3-5) where OC-3 is a well-known dedicated bandwidth at 155.52 Mbps (Col 1, lines 22-23).
- Regarding claims 24, 34, 44, and 54, examiner takes official notice that it is a well known feature of a network card to have a standardized network address associated with its identity, as a MAC address is a standardized network address identifier for any Ethernet network card, a commonly known and abundant type of network card.
- Regarding claims: 23, 33, 43, and 53 Wynn teaches: a backplane used for networking with all of the above embodiments except a plurality of packets being

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transmitted to the backplane cards by means of network devices external to the network. Bare teaches: network switches communicating throughout a network external to one another (Figure 13) and in conjunction with a backplane device (Col 33, lines 25-30) and a plurality of packets sent outside the central domain network (Col 6, lines 60-64). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a backplane with a series of network switches for providing more network connectivity to devices that have various physical attributes and not to exclude devices external to the central networking devices.

- Regarding claims: 2, 13, 25, 35, 45, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167). Wynn teaches: a backplane used for networking with all of the above embodiments except the network devices having a MAC address and the Ethernet communicating protocol. Bare teaches: Ethernet and MAC addresses used throughout the network where the packets have destination addresses to include MAC addresses using the Ethernet protocol (Col 14, lines 30-36). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of an Ethernet standard and MAC addresses to conform to one of the most common standards in LAN and for the devices of the applicant's invention to more readily communicate with the Ethernet devices external to its existing structure.

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- Regarding Claims: 4, 15, 27, and 57, Wynn teaches: a backplane used for networking with all of the above embodiments except a network switch being coupled to the backplane switch. Bare teaches: network switches communicating throughout a network (Figure 13) and in conjunction with a backplane device (Col 33, lines 25-30). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a backplane with network switch for providing more network connectivity to devices that have various physical attributes.
7. Claims 6, 7, 8, 10, 17, 18, 19, 21, 28, 29, 31, 37, 38, 39, 41, 47, 48, 49, 51, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167) and further in view of Peirce (US Patent No. 6157649).
- Regarding claims: 6, 7, 10, 17, 18, 21, 28, 31, 37, 38, 41, 47, 48, and 51 Wynn teaches: a backplane used for networking with all of the above embodiments except a gateway card coupled to a telephone network in conjunction with an IP address. Peirce teaches: a backplane network device (Col 5, lines 9-10) with a gateway card that answers calls (Col 2, lines 30-31), where the network is a telephone network (Col 1, lines 18-19), where the data transfer between units includes the IP protocol address association (Figure 4), with a plurality of packets being sent (Figure 3). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of IP

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addresses and telephone network connectivity as part of a large integration effort for networking improvement projects.

- Regarding Claims 8, 19, 29, 39, 49, and 58, Wynn teaches: a backplane used for networking where there exists a priority scheme for prioritizing data by bits (Col 18, lines 44-50), but fails to teach of a gateway card coupled to a telephone network transferring voice data in connection with the backplane device. Peirce teaches: a backplane network device (Col 5, lines 9-10) with a gateway card that answers calls (Col 2, lines 30-31), where the network is a telephone network (Col 1, lines 18-19) and telephone networks carry voice. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a gateway card to transfer network information that includes the data associated with voice, in the form of prioritized data packets, for prioritizing time sensitive data like voice for efficient human perception requirements.
8. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Lemaire (US Patent No. 6205149).
9. Claims 30, 40, and 50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167) and further in view of Lemaire (US Patent No. 6205149).
- Regarding claims 9, 20, 30, 40, and 50, Wynn teaches: a network backplane device where network data is transferred to and from cards on the backplane, but fails to teach of a priority indicator in the form of bits used to indicate a QoS level

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of association for an IEEE 802.1q standard used in conjunction with the current invention. Lemaire teaches: a priority bit used in a networking environment for a QoS indicator (Col 1, lines 35-39), where the system is capable of processing an 802.1q type packet for selection (Col 6, table/lines 23-24), where the QoS is implemented within the packet data transfer algorithm (Col 6, lines 28-31).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the use of a QoS standard with 802.1q standard into a backplane network design for a broader acceptance of standardization.

10. Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Francis (US Patent No. 6426952).

11. Claims 32, 42, 52 and 59, are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynn (US Patent No. 6275499), in view of Bare (US Patent No. 6216167) and further in view of Francis (US Patent No. 6426952).

- Regarding claims 11, 22, 32, 42, 52, and 59, Wynn teaches: a network backplane device, but fails to teach of a hot-swappable configuration for the backplane or a configuration where a card from the backplane could be removed while the system is powered on or operating. Francis teaches: a backplane with a method for hot-swapping cards while the system is operating (Col 27, lines 34-36).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the feature of removing cards from a

backplane device while operation is active for a fast and easy method of maintenance or repair.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Momirov (US Patent No. 6216167) Network based forwarding of data.
 - Hiscock (US Patent No. 6181681) LAN media access control.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kamran Emdadi whose telephone number is (703) 305-4899. The examiner can normally be reached between the hours of 8am and 5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin, can be reached at (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9314 for regular communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Kamran Emdadi

03/22/2003

**KWANG BIN YAO
PRIMARY EXAMINER**

